

A NEW MITE PARASITE (*HARPYRHYNCHUS*) FROM THE ROSELLE PARAKEET
(TROMBIDIFORMES, ACARI).

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(Two Text-figures.)

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Synopsis.

A new species of avian skin parasite, *Harpyrhynchus rosellacinus*, belonging to the order of Trombidiform mites, is described. The mite was taken from a cyst in the skin of the roselle parakeet and is the first *Harpyrhynchus* to be described from an indigenous Australian bird.

INTRODUCTION.

During 1958 Dr. Marc André, of the École pratique des Hautes Études, Ministère de l'Éducation Nationale, Paris, sent me a number of avian parasites from the Trouessart Collection; among them was a good series of mounted specimens of a new species of *Harpyrhynchus* from the roselle parakeet *Platycercus eximius*. This appears to be the first indigenous representative of the genus from Australia and as such is of some interest, also in view of the fact that in general it differs very little from the various species of the genus found in Europe and Africa while resembling two of these in some detail. The slides were labelled *Sarcoborus* (a synonym for *Harpyrhynchus*) *crisagalli* Berlese & Trouessart, which is obviously a slip, as the *Harpyrhynchus crisagalli* described by these two authors (1889, p. 139) from the African speckled Coly, *Colius striatus*, has a quite different and very characteristic appearance; it has recently been figured and redescribed by Lawrence (1959, fig. 1).

I am greatly indebted to Dr. Marc André for allowing me to describe this new form. The Holotype slide and the bulk of the material have been returned to the collection of which Dr. André is in charge, while a paratype slide will be deposited in each of the following institutions: The Australian Museum, Sydney, Australia, and the Natal Museum, Pietermaritzburg, South Africa.

Family HARPYRHYNCHIDAE Dubinin.

Genus HARPYRHYNCHUS Mégnin.

HARPYRHYNCHUS ROSELLACINUS, n. sp. (Figs. 1, 2).

Material: A mounted series of 33 adult females and 11 larvae on 13 slides, taken from a cyst in the skin of the parakeet *Platycercus eximius* at Sydney (no further data), in the collection Trouessart.

Holotype: One slide with 4 adult females. *Paratypes:* Three slides with 5, 2 and 1 adult females respectively.

Dorsal surface as in Figure 1a, dorsal shield clearly defined, a little longer than wide, with two setae situated just within its anterior border, these a little longer than the pair laterally and a little posteriorly to the peritremes, and subequal to the lateral setae between the insertion of legs I and II. Lateral margin between legs II and III with two similar setae situated close to each other, the one on the edge of the body, the other (a little in advance of it) inserted on the dorsal surface. All these setae with fine accessory hairlike serrations, a little stronger in the two last-named setae, all the remaining setae of the body and legs simple.

Ventral surface as in Figure 2 (of a larger paratype ♀), the setae arranged as in Figure 2, rising from large circular disc-like areas: posterior margin of body in the middle with a short slender seta on each side of the anal opening, very near the margin but definitely inserted on the ventral surface.

Pedipalps as in Figure 1c, seen from above, enlarged, from below as in Figure 2; dorsal surface with 3 large serrate hairs, the anterior one thickest and with about 18 tooth-like serrations arranged in a regular row on its dorsal margin, these modified hairs situated well in anterior third of the dorsal swelling; in addition a stout simple



Fig. 1. *Harpyrhynchus rosellacinus*, n. sp., ♀. a, dorsal surface (holotype); b, leg I in dorsal view ♀ (paratype); c, pedipalp in dorsal view enlarged (paratype).

seta rising from near the middle point of the pedipalp and laterally to the centre. this seta unusually long, easily surpassing the peritremal openings on each side; basal segment of pedipalp with 2 conspicuous setae on its ventral surface (Figure 2).

Legs: Leg III with 2 or 3, IV with only 2 very short rounded segments; III with 4 or 5 long terminal setae (5 probably the correct number) of which 3 are considerably thicker and longer than the two others; leg IV with 3 terminal setae, 2 being long and thick (Fig. 1a, 2). The thickest seta of tarsus III a little stouter than the thickest of

tarsus IV, the length of these two setae subequal and about equal to the total length of body. In Figure 1a the anterior legs of the holotype are bent over and downwards so that their apices are obscured; Figure 1b of another adult female shows leg I seen from above in full extension.

Dimensions: Length and width of holotype ♀ (mouth-parts included), 310 μ and 264 μ respectively; of a larger paratype ♀, 370 μ and 278 μ .

Larva: Round, wider than long, with only three pairs of well-developed legs, the two anterior ones with relatively much longer setae than in the adult, but with similar

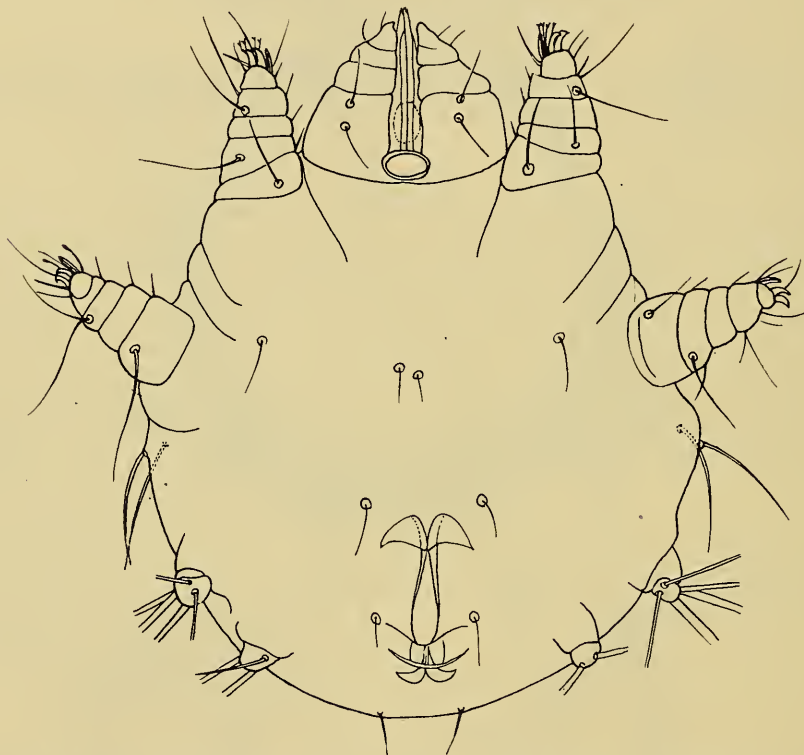


Fig. 2. *Harpyrhynchus rosellacinus* n. sp. Ventral surface of a paratype ♀.

claws and other terminal structures; leg III with 2 or 3 short, rounded segments, the apical one with three setae of different lengths, the second longest much exceeding the longest setae of the anterior legs, the longest about 1½ times the total body length.

Dorsal plate well defined, pedipalp well developed, with 3 modified hairs dorsally similar to those of adult, but no long simple seta posterior to these.

Dimensions: Total length and width of body, 120 μ and 127 μ respectively; longest seta of leg III, 209 μ .

No nymphs or male specimens are represented in the material before me. A number of encapsulated eggs are mounted with adult females on some of the slides; long setae and appendages at various stages of development can be seen through the capsules of the eggs which seem to be embedded in a structureless colloidal substance, possibly the contents of the cyst.

Affinities: The parasite resembles two species of *Harpyrhynchus* more closely than any others, *nidulans* Mégnin and *tracheatus* Fritsch. In having the dorsal setae provided with fine, almost invisible serrations, it resembles *nidulans* rather than *tracheatus*, but differs from it in the modified dorsal hairs of the palp being much

more heterogeneous in size and provided with stronger, more numerous and more regular serrations; the long smooth seta behind these hairs is either absent in *nidulans* or situated on the lateral surface; furthermore, the arrangement of the ventral setae of the abdomen is quite different in the two species and the number of long terminal setae on legs III and IV is also different, these being respectively 6-8 and 5-6 according to the illustrations of Fritsch for *nidulans*, 1954, fig. 1 (5-7 and 4 respectively according to the figures given by Dubinin, 1957, p. 97-99, figs. 23 and 25, for the same species).

From *tracheatus* it differs in the smooth dorsal seta of the pedipalp enlargement being much longer and situated further posteriorly, reaching beyond the peritreme, while in *tracheatus* it falls far short of it. The dorsal shield is comparatively wider and the setal pattern of the ventral surface is different from that of *tracheatus*, but the number of long terminal setae for legs III and IV is the same.

Taking all these characters into consideration, *rosellacinus* appears to resemble *tracheatus* more closely than any of the hitherto described forms, but is distinct from it; *tracheatus* was taken by Fritsch from a host belonging to a very different order of birds since it was found on the common buzzard of Europe, *Buteo buteo*.

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